

CLAIMS

1. A composition of hydrocarbon fuel, in the low vapor pressure range to very low vapor pressure range, and carbon dioxide (CO₂) wherein the concentration of CO₂ within the fuel is sufficient in volume to achieve a substantial reduction in exhaust soot particulate when the fuel is consumed by engine combustion.
2. A composition of hydrocarbon fuel, in the low vapor pressure range to very low vapor pressure range, wherein commercial grade of recycled carbon dioxide CO₂ is used and wherein the concentration of CO₂ within the fuel is sufficient in volume to achieve a substantial reduction in exhaust soot particulate during engine combustion.
3. The composition of claim 1 and 2 wherein said CO₂ is mixed under normal temperature and pressure within said fuel. and the CO₂ does not react chemically with the fuel.
4. The composition of claim 1 and 2 wherein the combination of said fuel and said CO₂ is employed to improve fuel economy.
5. The composition of claim 4 wherein the combination of said fuel and said CO₂ is employed to provide a net reduction in CO₂ production in engine exhaust.
6. The composition of claim 1 and 2 wherein the combination of said fuel and said CO₂ is employed to provide a net fuel cost savings.
7. The composition of claim 1 and 2 wherein the combination of said fuel and said CO₂ is employed to reduce fuel viscosity without entering into a chemical reaction.
8. A composition of: liquid hydrocarbon fuel, in the low vapor pressure to very low vapor pressure range, and carbon dioxide CO₂: wherein the concentration of CO₂ within the fuel is less than 1 atmosphere of pressure and sufficient in volume to provide a substantial supply of inert gas for use in fuel tank ullage inerting purposes and the CO₂ does not react chemically with the fuel.
9. The composition of claim 8 wherein: hydrocarbon fuel is in the low vapor pressure to very low vapor pressure range, and uses a commercial grade of recycled carbon dioxide CO₂ wherein the concentration of CO₂ within the fuel is sufficient in volume to provide a substantial supply of inert gas for use in fuel tank ullage inerting purposes.
10. The composition of claim 8 wherein the combination of enhanced fuel by the added CO₂ provides an improved fuel fire safety factor when said enhanced fuel is transferred and stored.

